

INTERNATIONAL SEARCH REPORT

Inter. al Application No
PCT/IB2004/052615

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H01L51/20 H01L27/15 H05B33/24

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 05, 12 May 2003 (2003-05-12) -& JP 2003 031355 A (PIONEER ELECTRONIC CORP), 31 January 2003 (2003-01-31) abstract; figures 1,3,6,8	1,2,6-9
Y		3,5,10
X	US 6 307 528 B1 (YAP DANIEL) 23 October 2001 (2001-10-23) column 1, lines 12-15 column 2, lines 35-39,58-67 column 5, lines 16-51 column 10, lines 47,48	1,2,6,9, 10
	----- -/-- -----	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

4 May 2005

Date of mailing of the international search report

17/05/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Faou, M

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/052615

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 12, 5 December 2003 (2003-12-05) -& JP 2003 303677 A (DAINIPPON PRINTING CO LTD), 24 October 2003 (2003-10-24) abstract; figure 3	1,9
Y	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 08, 6 August 2003 (2003-08-06) -& JP 2003 100464 A (SANYO ELECTRIC CO LTD), 4 April 2003 (2003-04-04) abstract; figure 1	3,10
A		1-10
Y	EP 1 077 589 A (HARNESS SYSTEM TECHNOLOGIES RESEARCH, LTD; SUMITOMO WIRING SYSTEMS, LT) 21 February 2001 (2001-02-21) column 1, paragraph 4-7; figure 2	5
P,X	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 12, 5 December 2003 (2003-12-05) -& JP 2004 119197 A (SEIKO EPSON CORP), 15 April 2004 (2004-04-15) abstract; figure 1	1-3,8-10

BEST AVAILABLE COPY

INTERNATIONAL SEARCH REPORT

Interr il Application No
PCT/IB2004/052615

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 2003031355	A	31-01-2003	NONE	
US 6307528	B1	23-10-2001	NONE	
JP 2003303677	A	24-10-2003	NONE	
JP 2003100464	A	04-04-2003	NONE	
EP 1077589	A	21-02-2001	JP 2001057474 A EP 1077589 A2	27-02-2001 21-02-2001
JP 2004119197	A	15-04-2004	NONE	

BEST AVAILABLE COPY